

START

0024672

MEETING MINUTES

Subject: Expedited Response Action Weekly Interface

TO: Distribution

BUILDING: 450 Hills

FROM: W. L. Johnson

CHAIRMAN: *W. L. Johnson*

Dept-Operation-Component	Area	Shift	Meeting Dates	Number Attending
Environmental Engineering	3000	Day	November 9, 1992	14
M. V. Berriochoa	B3-30	EPA	B5-01	
H. D. Downey*	L4-92	P. Beaver		
J. K. Erickson*	A5-19	P. T. Day*		
E. D. Goller	A5-19	D. R. Einan*		
J. W. Green*	H6-04	D. A. Faulk*		
F. W. Gustafson*	H6-04	L. Gadbois*		
M. C. Hagood*	H6-04	P. S. Innis*		
W. F. Heine	B2-35	D. R. Sherwood*		
G. C. Henckel*	H4-55			
R. G. McLeod	A5-19	Ecology	fax	
P. M. Pak*	A5-19	J. Donnelly*		
J. K. Patterson*	L4-92	L. Goldstein		
D. L. Sickle	L4-92	D. Goswami		
J. T. Stewart	A5-20	R. L. Hibbard		
R. K. Stewart*	A5-19	J. Phillips*		
P. J. Valcich	H6-04	D. D. Teel		
T. M. Wintczak	L4-92	J. Yoke1*		
EDMC	H4-22			
Field File Custodian	H4-55			
ERAG Route				
WLJ File/LB				

*Attendees

The weekly interface meetings on the expedited response actions (ERAs) was held to status the ERAs for the U.S. Department of Energy, Richland Field Office and the regulators. The meeting was conducted in accordance with the attached agenda. Actions were formally reviewed and the attached action item list was updated. The weekly report is also attached.

This meeting focused on a detailed review of CCl₄ activities, the proposed N-Spring ERA, and the Sodium Dichromate Disposal Site EE/CA review schedule.

Attachments:

1. Agenda
2. Action Item List
3. Decisions, Agreements & Commitments
4. Expedited Response Action Weekly Report, 11/06/92
5. CCl₄ Presentation
6. N-Spring Presentation
7. Sodium Dichromate EE/CA review schedule



WEEKLY ERA INTERFACE AGENDA

SUBJECT: STATUS OF THE EXPEDITED RESPONSE ACTIONS

DATE: November 9, 1992

- GENERAL ISSUES
 - ERA Interface Action Item review
- INDIVIDUAL PROJECT STATUS
 - 200-W Carbon Tetrachloride briefing
 - N-Spring briefing
 - Sodium Dichromate
o EE/CA review
- OTHER ISSUE
- SUMMARY OF ACTION ITEMS
- SIGN-OFF ON ANY DECISIONS, AGREEMENTS, OR COMMITMENTS

EXPEDITED RESPONSE ACTION INTERFACE MEETING

-ACTION ITEMS-
November 9, 1992

ORGANIZATION

ACTION ITEM

WHC	WHC will provide RL, EPA, and Ecology copies of the GPR reports for Riverland, and Pickling Acid ERA sites when they become available. (open) North Slope and Sodium Dichromate reports have been provided.
WHC	Provide description of the best method to incorporate 618-10 into 618-11 ERA. (open)
EPA/Ecology/RL	Assess the feasibility of a complete parallel review for the Sodium Dichromate EE/CA and provide a decision by 11/9/92. (closed)
WHC	Nuclear Safety briefing on the approach to be used for 618-11 ERA when determined. (open)
RL	On November 9, 1992, RL will provide an N-Springs discussion. (closed)
WHC	WHC will set up a meeting to preview the video tapes taken at the Sodium Dichromate, Riverland, and North Slope ERA Sites. (open)
WHC	WHC will obtain copies of the most recent ERA fact sheets for review. (open)
WHC	WHC will prepare a draft response for RL's and Ecology's use in responding to the Oregon Hanford Nuclear Waste board letter. (open)
WHC	WHC will contact their legal department to gather information on what is required by the GSA to excess government property after a ROD is reached. (closed) <i>Legal was contacted and was not able to provide black & white guidance. They are continuing to look into this issue.</i>
WHC	WHC will provide EPA with a copy of the field logbook for the Riverland ERA sampling activities. (closed) <i>Copy provided to Dennis Faulk on 11/5/92.</i>

EXPEDITED RESPONSE ACTION INTERFACE MEETING

-DECISIONS, AGREEMENTS, & COMMITMENTS-
November 9, 1992

DECISIONS:

AGREEMENTS:

Nothing of any significance.

COMMITMENTS:

DOE Representative

EPA Representative

ECOLOGY Representative

WJ Gol 11/11/92 :

WHC Representative

TOPICS

- General Goals and Schedule
- Operations
- Well Field Development
- Site Characterization

FY-93 ERA OBJECTIVES

- **Increase Extraction Rates**
 - **Continuous (or optimal) Operations**
 - **Increased Extraction Capacity**
 - **Well Field Development**

- **Identify and Integrate Cheaper Forms of Extraction, Treatment, and Characterization**
 - **Onsite Treatment Study**
 - **Passive Extraction**
 - **Cheaper Access**

200 WEST AREA CCl₄ ERA

OPERATIONS

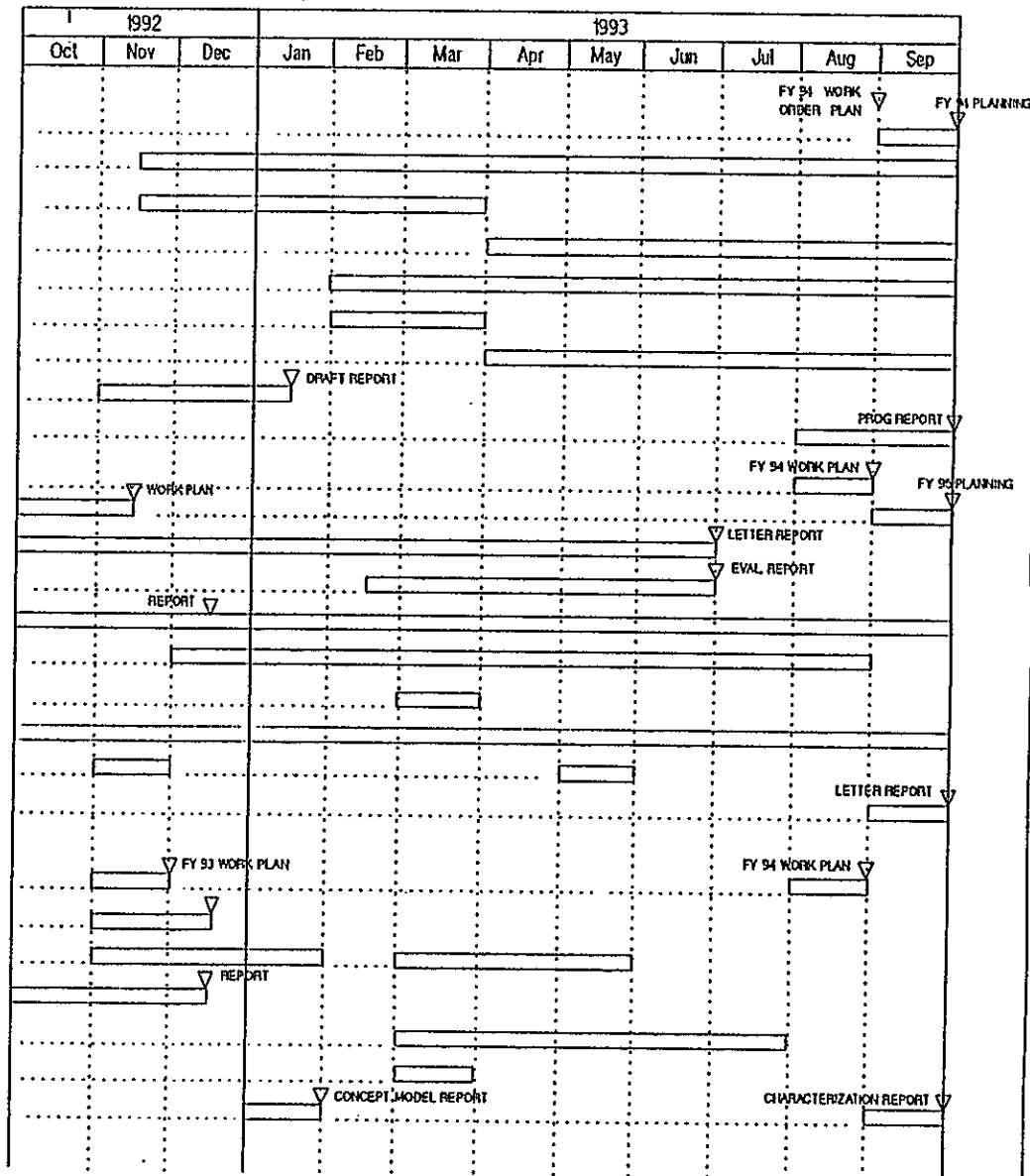
- . TASK 1: PROJECT PLANNING
- . TASK 2: Z-1A/Z-1B OPERATIONS
- . 2a PHASE I OPERATIONS (24 HOUR OPERATIONS 500 CFM)
- . 2b PHASE II OPERATIONS (UPGRADE SYSTEM 1000 CFM)
- . TASK 3: Z-9 OPERATIONS
- . 3a: LEASED SYSTEM
- . 3b: Z-9 NEW SYSTEM
- . TASK 4: ONSITE TREATMENT STUDY
- . TASK 5: REPORTING

WELL FIELD EVALUATION/ENGINEERING

- . TASK 1: PROJECT PLANNING
- . TASK 2: AIR FLOW MODELLING
- . TASK 3: WELL FIELD TESTING *
- . TASK 4: BASELINE MONITORING
- . TASK 5: EXTRACTION WELL INSTALLATION
- . TASK 6: CONE PENETROMETER EXTRACTION WELL INSTALLATION *
- . TASK 7: WELL REMEDIATION
- . TASK 8: GW SAMPLING
- . TASK 9: REPORT WRITING

CHARACTERIZATION

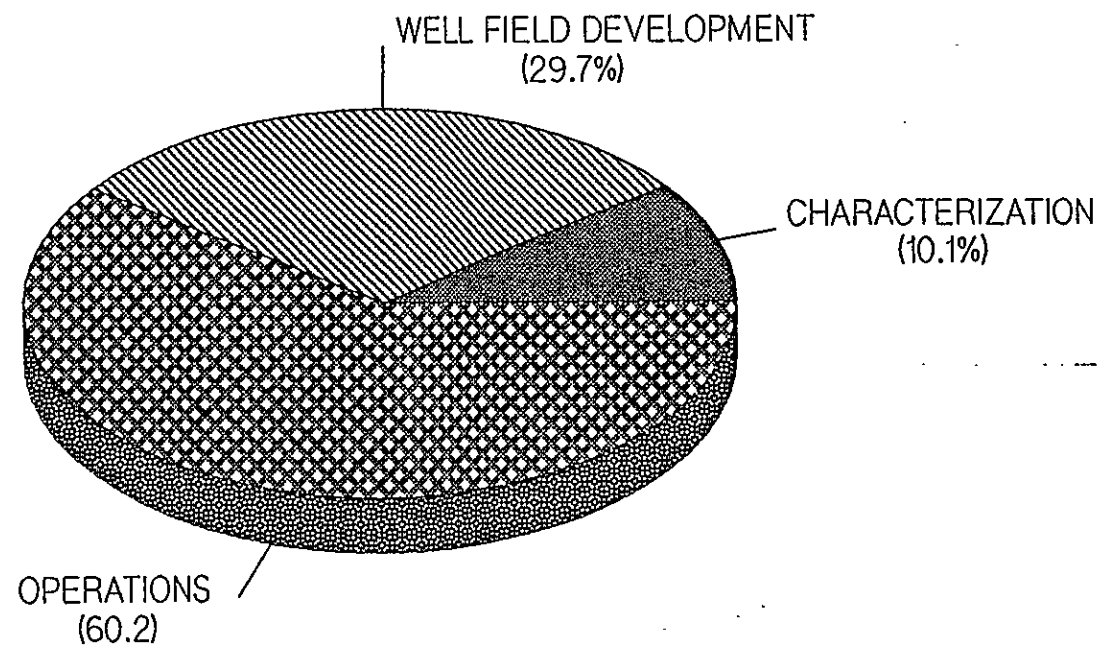
- . TASK 1: PROJECT PLANNING
- . TASK 2: SOURCE INVESTIGATION
- . TASK 3: SURFACE INVESTIGATION *
- . TASK 4: EFFLUENT PIPELINE INTEGRITY
- . TASK 5: DRILLING & SAMPLING *
- . TASK 6: CONE PENETROMETER *
- . TASK 7: REPORT WRITING



* = VOC-ARID ID LEVERAGED

Project:	MH3WERA1	Date: 9 Nov 92 08:20
200 WEST AREA CCl ₄ ERA		
Page: 1	Drawn by: Steve J. Sakey 6-3092/H4-55/450 Hills	

200 WEST CARBON TETRACHLORIDE ERA FY 1993 FUNDING ALLOCATION



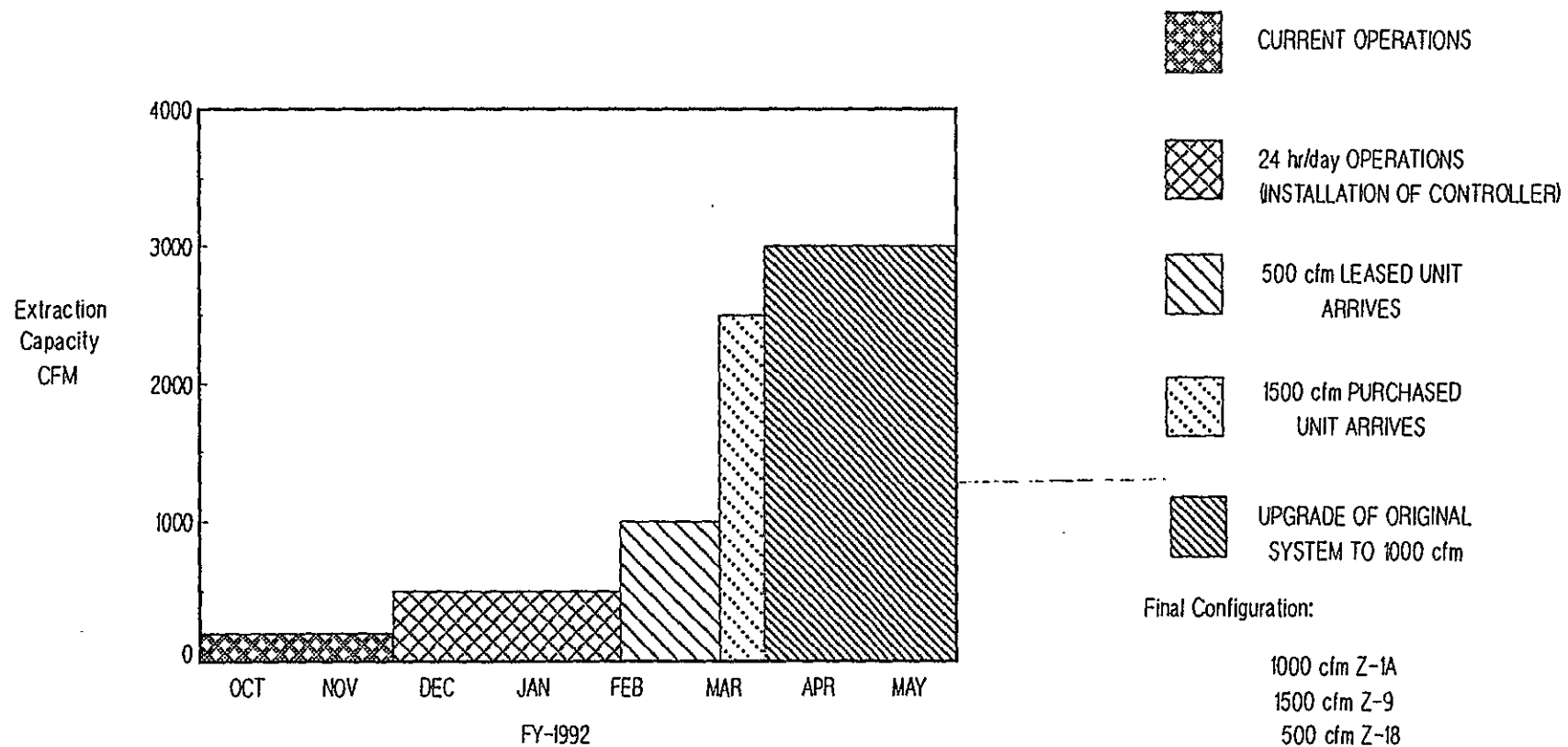
LEVERAGING WITH THE VOC-ARID ID

- Onsite Treatment Options
- Extraction Wells
- Characterization Wells
- Well Field Enhancement

OBJECTIVES

- INSTALL 2 NEW VES UNITS AND EXPAND EXIST VES TO 1000 CFM
- ESTABLISH EXTRACTION AT Z-9 AND INCREASE PRODUCTION FROM Z-1A AND Z-18
- MAXIMIZE PRODUCTION (HYGRADE THE WELLFIELD)
- ESTABLISH PRODUCTION ACCOUNTABILITY BASED ON MEASUREMENT OF OPERATING EFFICIENCY (SCHEDULED VS ACTUAL)
- DETERMINE FEASIBILITY OF ON-SITE TREATMENT/DESTRUCTION OF CARBON TETRACHLORIDE

CC₄ VES OPERATION CAPACITY



WAYNE4 11/6/92

7-11-62

VES PRODUCTION BASED ON CAPACITY AND CONCENTRATION

	<u>CONCENTRATION</u>	
	<u>100 PPM</u>	<u>1000 PPM</u>
<u>CAPACITY</u>		
500 CFM	28 LBS/DAY	280 LBS/DAY
1000 CFM	57 LBS/DAY	570 LBS/DAY
2500 CFM	141 LBS/DAY	1410 LBS/DAY
3000 CFM	170 LBS/DAY	1700 LBS/DAY

FY93 SITE CHARACTERIZATION

**200 WEST AREA CARBON TETRACHLORIDE EXPEDITED RESPONSE ACTION
VOLATILE ORGANIC COMPOUNDS - ARID INTEGRATED DEMONSTRATION**

Virginia Rohay

Westinghouse Hanford Geosciences

November 9, 1992

PRIMARY OBJECTIVE

Refine the conceptual model of the site

- optimize removal of the carbon tetrachloride
- aid development and testing of new technologies

OTHER OBJECTIVES

Monitor performance of remedial actions

Provide samples to support technology demonstrations

Demonstrate and use new characterization and monitoring technologies

REFINE CONCEPTUAL MODEL OF THE SITE

Nature and Extent of Contamination

Determine the identity, phase, concentration, and current distribution of the individual contaminants.

Information is fundamental for identifying technology needs and for designing effective remedial actions.

Preferential Transport Pathways and Rates

Needed for both the unsaturated zone and unconfined aquifer.

Requires defining the hydrogeologic model (identifying the physical, chemical, and microbiological parameters of the subsurface that affect transport and on describing the spatial variability of these parameters).

Supports predictive modeling of the unsaturated zone.

Behavioral Characteristics of the Wastes

Define the physical, chemical, and microbiological properties of the carbon tetrachloride, the co-contaminants, and mixtures that affect their transport, sorption, and natural degradation.

Supports predictive modeling and identification of technology needs.

STRATEGY

MAXIMIZE USE OF FIELD SCREENING METHODS AS APPROPRIATE

MAXIMIZE USE OF EXISTING DATA AND WELLS

FOCUS DATA COLLECTION ON SPECIFIC CONTAMINANTS OF CONCERN.

USE "OFF-THE-SHELF" TECHNOLOGY AS APPROPRIATE, IN CONJUNCTION WITH
THE DEMONSTRATION OF NEW TECHNOLOGIES

9 3 3 2 7 3 1 7

FIELD INVESTIGATION TASKS

SOURCE TERM CHARACTERIZATION

- Evaluate effluent pipeline integrity
- Investigate source of secondary groundwater maximum
- Assess artificial recharge

CONDUCT SOIL GAS SURVEYS

- Map lateral distribution of VOC
- Estimate VOC vapor flux for soils
- Map vertical distribution of VOC

CONDUCT GEOPHYSICAL SURVEYS

CONDUCT EXISTING WELL INVESTIGATIONS

- Borehole geophysical logging
- Evaluate integrity of old wells
- Sample selected wells

CONDUCT NEW WELL INVESTIGATIONS

- Crib wells
- Deep groundwater monitoring well
- Chemical, physical, microbiological analyses

SAMPLE GROUNDWATER

LEVERAGING ACTIVITIES

ERA and VOC-Arid ID site characterization programs merged

- to maximize efficient use of time and resources
- to ensure that each activity and resulting product achieves maximum usefulness to both programs

ERA and VOC-Arid ID share costs

FY93 WELLFIELD DEVELOPMENT

200 WEST AREA CARBON TETRACHLORIDE EXPEDITED RESPONSE ACTION

Virginia Rohay

Westinghouse Hanford Geosciences

November 9, 1992

OBJECTIVES

Define parameters of the present wellfield concentrations of VOC

Provide guidance to optimize VOC extraction by the active vapor extraction system

Develop new mechanisms to enhance the passive extraction of VOC

Provide supplemental data for site characterization and safety assessments

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ACTIVE VAPOR EXTRACTION SYSTEM STRATEGY

Encompasses well placement, target horizons, and pumping rates and durations

- Short-term extractions tests to help determine mass flux, flow at vacuum, and distribution and concentration of carbon tetrachloride plumes

- Characterization sampling of extracted soil gas to provide understanding of the presence and concentrations of the co-contaminants not measured by the system detectors

- Airflow pathways study to understand and control airflow in the subsurface

- Optimize extraction at each carbon tetrachloride disposal site

- Evaluate production data

- Determine radii of influence

- Locate additional wells and intervals

Weekly Report, Week Ending November 6, 1992
EXPEDITED RESPONSE ACTIONS
Technical and Management Contact - Wayne L. Johnson, 376-1721
Environmental Division

North Slope Expedited Response Action - Forty five shallow characterization holes have been sampled completing the initial characterization at a number of locations. The cultural resources personnel have indicated that sampling may be performed at homestead cisterns and military sites. Initiated research into the topic of previously issued records of decision for the release of large areas of land.

Pickling Acid Crib Expedited Response Action - On schedule waiting for regulator comments on the project and sampling plans. The geophysical report is in the clearance process.

Riverland Railroad Site Expedited Response Action - Sampling was completed with no field indications of radioactivity in excess of natural background. Additional geophysical investigation of the tile field will be performed during the week of Nov. 9, 1992 to clarify the location.

Sodium Dichromate Expedited Response Action - The Sodium Dichromate ERA Proposal is ready for parallel review between RL, EPA, Ecology, and the Public if RL will concur. A decision on the approach will be made on November 9, 1992, during major comment resolution between the regulators, RL and DOE-HQ.

N-Springs Expedited Response Action - WHC has provided the N-Springs ERA project plan to DOE for transmittal to EPA and Ecology. DOE informally transmitted the document to the regulators.

618-11 Burial Ground Expedited Response Action - The PNL Photo Lab and the National Photography Intelligence Center were enlisted to locate historical aerial photos. Awaiting a plot plan to assist the National Center in their search. Also working with PNL mapping in search of 1962-67 photos.

Transportation/Packaging were contacted to help identify transportation issues related to waste translocation. The fundamental input into the whole process is what wastes will be moved and their destination. Unfortunately, packaging requirements and design are quite specific to the payload. There appears to be very little work applicable to moving excavated nuclear wastes. The establishment of an approved transportation system will likely take considerable time and is dependent on the potential impact of the transported material. Retrieval methodology, waste acceptance and storage criteria will also impact the process.

Obtained a copy of a document entitled, "Engineering Assessment of Low-Level Liquid Disposal Caissons at 618-11" and an aerial photograph of the caissons.

Safety Documentation is providing feedback regarding the perspective of project scope and objectives. This will aid in focusing project resources.

ERA WEEKLY REPORT CONTINUED

Carbon Tetrachloride Expedited Response Action -

200 West Area CCl₄ Production Information

Operational Date	Disposal Facility	Amount of CCl ₄ Removed (lb)	Average CCl ₄ Conc. (ppm)	Total Operational Time (hr)	Average Flowrate (SCFM)
8/13 - 8/19	216-Z-1A	65	420	42	160
8/19 - 8/25	216-Z-1A	125	583	47	190
8/26 - 9/3	216-Z-1A	79.34	459	32	210
9/3 - 9/9	216-Z-1A	21.3	580	9	175
9/10 - 9/16	216-Z-1A	73.82	560	36.5	175
9/17 - 9/23	216-Z-1A	66	500	36.3	150
9/24 - 9/30	216-Z-1A	77.3	661	30	158
10/1 - 10/7	"	132.9	858	38.3	166
10/7-10/13	"	138.63	1019	44.75	136
10/15-10/21	"	140.7	924	45.5	138
10/21-10/27	"	63.0	765	24	144
10/28-	"	108.00	1000	24.75	175
Totals		1752.03	694	410.1	165

* Includes amounts collected before August 13, 1992.

An N-Springs ERA must be part of an overall 100-N Area environmental response strategy that must accomplish, at a minimum, three major tasks:

- 1. Reduce contaminant flux to the Columbia River through 100-N Area springs and seeps.**
- 2. Control sources of groundwater contamination from 100-N Area waste sites.**
- 3. Treat groundwater contaminated by 100-N Area operations.**

RL's N-Springs ERA focus: Reduce contaminant flux through N-Springs.

GOAL

**To reduce or eliminate the migration of strontium 90 into
the Columbia River through N Springs.**

OPTIONS

- **No action**
- **Vertical barriers (slurry, grout, freeze walls)**
- **Pump & Treat (ion exchange, reverse osmosis, chemical precipitation)**
- **Hydraulic controls**
- **Permeable treatment beds**
- **Combination of above alternative**

EVALUATION CRITERIA

- **Timeliness**
- **Protectiveness**
- **Technical feasibility**
- **Institutional considerations**
- **Cost benefit considerations**
- **Environmental impacts**

SCHEDULE

- **ERA proposal to regulators 4/93**
- **ERA proposal for public review 6/93**
- **Action memorandum 7/93**
- **Begin implementing ERA 1994**

N Springs ERA

11/8/92

FEEDBACK ?

APPROVAL TO PROCEED

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SODIUM DICHROMATE ERA EE/CA REVIEW SCHEDULE

The proposed Engineering Evaluation Cost Analysis (EE/CA) parallel review schedule (contingent on DOE-HQ approval) is:

November 9, 1992 - Issue Public Review Alert Notice
RL/EPA/Ecology ten day review

November 18, 1992 - Release Sodium Dichromate EE/CA Proposal for
public review

December 18, 1992 - All comments received by close of business

December 22, 1992 - All comments addressed
Sodium Dichromate Proposal released

December 23, 1992 - Issue Action Memorandum

January 6, 1992 - If required, start cleanup activities

U.S. Environmental Protection Agency
Washington State Department of Ecology
U.S. Department of Energy

invite you to comment on the

Sodium Dichromate Expedited Response Action Proposal at the Hanford Site

The Sodium Dichromate ERA Proposal is an engineering evaluation and cost analysis of alternatives to remediate the ERA. The Sodium Dichromate ERA addresses the sodium dichromate barrel landfill located between the 100 D and H areas. The landfill is the sole waste site within operable unit 100-IU-4.

The 30-day public comment period is November 18 through December 18, 1992.

Under the Tri-Party Agreement and the Community Relations Plan, interested citizens have the opportunity to evaluate and comment on ERA proposals during a 30-day public comment period.

Copies of the document are available at:

U.S. Department of Energy--Richland Reading Room
Federal Building Room 157
825 Jadwin Avenue
Richland, WA 99352

For more information, or to send written comments, write to:

Mr. D. Goswami, Unit Manager
Washington Department of Ecology
7601 W. Clearwater
Suite 102
Kennewick, WA 99336

Table B-2. Sample Results (sheet 1 of 2)

SAMPLE No.	SAMPLE TYPE	LOCATION (Figure 2 and 11)	ANALYSIS RESULT	
			Chromium + 6 (Cr + 6) ppm	Chromium (Cr) ppm
Surface Soil Samples Collected 7/15/92				
B018X7	Cr+6 Field Screening	Site B	0.0	NR
B018X8	Cr+6 Field Screening	Site D, Composite	0.0	NR
B018Y0	Cr+6 Field Screening	Site I, Composite	0.0	NR
B018Y1	Cr+6 Field Screening	Site K & L, Composite	0.0	NR
B018Y2	Cr+6 Field Screening	Site O, Composite	0.0	NR
B018Y3	Cr+6 Field Screening	Site P, Composite	0.0	NR
B018Y4	Cr+6 Field Screening	Site Q, Composite	0.0	NR
B018Y5	Cr+6 Field Screening	Site R, Composite	0.0	NR
B018Y6	Cr+6 Field Screening	Site S, Composite	0.0	NR
B018Y7	Cr+6 Field Screening	Site T, Composite	0.0	NR
B018Y8	Cr+6 Field Screening	Site W	0.0	NR
B018Y9	Cr+6 Field Screening	Site X	0.0	NR
B018Z0	Cr+6 Field Screening	West of Well Pad, Composite	0.0	NR
B018Z1	OFFSITE Lab	Site P	NR	11.60 *
B018Z2	OFFSITE Lab (Quality Assurance, QA)	B018Z1 Duplicate	NR	15.50 *
B018Z3	OFFSITE Lab (QA)	B018Z1 Split	NR	12.00 *
B018Z4	OFFSITE Lab (QA)	Equipment Blank	NR	0.92 *
Background Surface Soil Samples Collected 8/24/92				
B018Z5	OFFSITE Lab	50 ft. West N900 E500	<0.50	10.3
B018Z6	OFFSITE Lab	50 Ft. West N1500 E500	<0.50	11.2
B018Z7	OFFSITE Lab	50 ft. North N2020 E660	<0.50	10.4
B018Z8	OFFSITE Lab	50 ft. East N1500 E800	<0.50	10.9
B018Z9	OFFSITE Lab (QA)	Duplicate B018Z5	<0.50	10.9
B01900	OFFSITE Lab (QA)	Split B018Z5	<0.10	12.9
Test Trench Samples collected 9/17/92				
B01901	OFFSITE Lab (QA)	Equipment Blank	<0.50	0.7 *
B01902	OFFSITE Lab	Trench 1, South End, 2.5 ft. deep	<0.50	12.1 *
B01903	OFFSITE Lab (QA)	B01902 Duplicate	1.32	15.1 *
B01904	OFFSITE Lab (QA)	B01902 Split	<0.10	18.0
B01905	OFFSITE Lab	Trench 1, North End, 8 ft. deep	<0.50	27.8 *
B01906	OFFSITE Lab	Trench 2, West End, 7.5 ft. deep	<0.50	15.3 *
B01907	OFFSITE Lab	Trench 2, East End, 6 ft. deep	<0.50	11.0 *
B01908	Cr+6 Field Screening	Trench 1, South End, 1.5 ft. deep	0.98	14.4
B01909	Cr+6 Field Screening	Trench 1, South End, 2.5 ft. deep	1.06	11.1
B01910	Cr+6 Field Screening	Trench 1, South End, 5 ft. deep	2.87	13.9
B01911	Cr+6 Field Screening	Trench 1, South End, 6 ft. deep	0.92	10.4
B01912	Cr+6 Field Screening	Mid-trench 1, 3 ft. deep	1.83	29.6
B01913	Cr+6 Field Screening	Trench 1, North End, 8 ft. deep	2.91	45.1
B01914	Cr+6 Field Screening	Trench 2, West End, 3 ft. deep	1.91	38.9
B01915	Cr+6 Field Screening	Trench 2, West End, 7.5 ft. deep	3.73	56.3
B01916	Cr+6 Field Screening	Mid-trench 2, 3 ft. deep	15.60	39.9
B01917	Cr+6 Field Screening	Trench 2, East End, 6 ft. deep	1.02	10.0
B01918	Cr+6 Field Screening	Trench 2, East End, 4.5 ft. deep	0.0	11.4

* Offsite Lab Gamma Spectrum measurements are at background radiation levels.

Table B-2. Sample Results (sheet 2 of 2)

<u>SAMPLE No.</u>	<u>SAMPLE TYPE</u>	<u>LOCATION (Figure 2 and 11)</u>	<u>ANALYSIS RESULT</u>	
			Chromium+6 (Cr+6) ppm	Chromium (Cr) ppm
Test Trench Samples Collected 9/24/92 (Repeat of samples B01912 through B01916)				
B01919 (B01916)	Cr+6 Field Screening	Mid-trench 2, 3 ft. deep	0.87	<1.19
B01920 (B01914)	Cr+6 Field Screening	Trench 2, West End, 3 ft. deep	1.89	<1.20
B01921 (B01915)	Cr+6 Field Screening	Trench 2, West End, 7.5 ft. deep	0.93	<1.49
B01922 (B01912)	Cr+6 Field Screening	Mid-trench 1, 3 ft. deep	0.87	<1.20
B01923 (B01913)	Cr+6 Field Screening	Trench 1, North End, 8 ft. deep	2.91	<1.20
Test Pit Samples Collected 9/24/92				
B01924	Test Pit OFFSITE Lab (QA)	Equipment Blank	<0.50	0.96
B01925	Test Pit OFFSITE Lab	6 ft. deep	<0.10	4.4
B01926	Test Pit OFFSITE Lab (QA)	B01925 Duplicate	<0.50	7.8
B01927	Test Pit OFFSITE Lab (QA)	B01925 Split	<0.50	7.0